

Claims

1. Apparatus for sharing data over a network, having a plurality of network-connected terminals, each comprising,

5 visual display means;

processing means;

storage means; and

memory means; wherein

10 said memory means is configured to store program instructions for equipping objects stored therein with attributes and for managing the duplication of said objects;

said processing means is configurable by said program instructions to perform the steps of

equipping an object with attributes at a first of said network terminals;

15 at a second of said network terminals, matching said object attributes of said first terminal with the attributes of an object amongst all of the objects stored in said second terminal;

duplicating said object from said second terminal to said first terminal;

20 at said first terminal, accessing data in said duplicated object using locally executed object instructions; and

maintaining data consistency between said duplicated objects.

2. Apparatus according to claim 1, wherein said objects are duplicated objects.

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3. Apparatus according to claim 1 and 2, wherein any of said duplicated objects is either a duplicate updated by a duplicate master or a

duplicate master which updates its respective duplicas.

4. Apparatus according to claims 1 to 3, wherein said duplicated objects are subscriber duplicated objects or publisher subscriber objects.

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5. Apparatus according to claims 1 to 4, wherein said equipping of objects with attributes determines whether said objects are subscriber duplicated objects or publisher subscriber objects.

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6. Apparatus according to claim 1, wherein said second of said network terminals stores the duplicate master of a cell duplicated object.

7. Apparatus according to claim 6, wherein said first network terminal stores a duplica of said cell duplicated object.

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8. Apparatus according to claim 1, wherein said object of said first terminal at said second of said network terminals is a duplica of said object at said first terminal.

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9. Apparatus according to claim 1, wherein said all of the objects stored in said second terminal are duplicas, with the exception of the cell duplicated object which is a duplicate master.

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10. Apparatus according to claim 1, wherein the potential number of matches resulting from said matching operation between objects amongst said all of the objects stored in said second terminal embodies a duplication space.

11. A method of sharing data over a network, having a plurality of network-connected terminals, each comprising memory means and processing means, said memory means including instructions for equipping
5 objects stored therein with attributes and managing the duplication of said objects, including steps of

equipping an object with attributes at a first of said network terminals;

at a second of said network terminals, matching said object attributes
10 of said first terminal with the attributes of an object amongst all of the objects stored in said second terminal;

duplicating said object from said second terminal to said first terminal;

at said first terminal, accessing data in said duplicated object using
locally executed object instructions; and

maintaining data consistency between said duplicated objects.

12. Method according to claim 1, wherein said objects are
15 duplicated objects.

13. Method according to claim 1 and 2, wherein any of said
20 duplicated objects is either a duplicate updated by a duplicate master or a duplicate master which updates its respective duplicates.

14. Method according to claims 1 to 3, wherein said duplicated
objects are subscriber duplicated objects or publisher subscriber objects.

15. Method according to claims 1 to 4, wherein said equipping of
25 objects with attributes determines whether said objects are subscriber

duplicated objects or publisher subscriber objects.

5 **16.** Method according to claim 1, wherein said second of said network terminals stores the duplicate master of the duplication space duplicated object or the duplicate master of the cell duplicated object.

10 **17.** Method according to claim 6, wherein said first network terminal stores a duplica of the duplication space duplicated object or the cell duplicated object.

15 **18.** Method according to claim 1, wherein said object of said first terminal at said second of said network terminals is a duplica of said object at said first terminal.

20 **19.** Method according to claim 1, wherein said all of the objects stored in said second terminal are duplicas, with the exception of the cell duplicated object which is a duplicate master.

25 **20.** Apparatus according to claim 1, wherein the potential number of matches resulting from said matching operation between objects amongst said all of the objects stored in said second terminal embodies a duplication space.

21. A computer-readable medium having computer-readable instructions executable by a computer such that, when executing said instructions, a computer will perform the steps of

equipping an object with attributes;
matching said object attributes with the attributes of an object amongst
all of the objects stored in another of said computer;
duplicating said object from said another computer to said computer;
5 at said computer, accessing data in said duplicated object using
locally executed object instructions; and
maintaining data consistency between said duplicated objects.

10 **22.** A computer-readable memory system having computer-
readable data stored therein, comprising
local objects;
duplicated objects; and
program instructions to equip said local objects with attributes and
manage the duplication thereof.

15 **23.** A computer-readable memory system according to claim 22,
wherein said program instructions are configured to
equip an object with attributes;
match said object attributes with the attributes of another object;
20 duplicate said other object to said memory system;
access data in said duplicated object using locally executed object
instructions; and
maintain data consistency between said duplicated objects.